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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,077	10/31/2003	Leslie Ross	BSG P65AUS	1364
20210	7590	08/10/2006	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. 112 PLEASANT STREET CONCORD, NH 03301			VO, HAI	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,077

Applicant(s)

ROSS, LESLIE

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-18, 20-23 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-18, 20-23 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The art rejections over WO 2001 58687 have been withdrawn in view of the present amendment. WO'687 does not teach or suggest honeycomb cellular core having a top and bottom surfaces being deformed and distorted.
2. The two Landi references US 5,039,567 and US 5,701,621 had been cited in the 03/08/2006 Advisory Action. However, they have not been made of the record. The claims have never been rejected over the Landi references. The examiner notes that the present amendments are sufficient to exclude the Landi references. As pointed out by Applicant at page 8 of the 06/08/2006 amendment, the honeycomb of Landi et al '567 and '621 are designed to be flexible so as to stabilize the spread the load applied thereto. Such a structure is the reserve of a rigid honeycomb as set forth in the claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 16-18, 20-23 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Support for a lightweight rigid core of honeycomb cellular material is not fully found in the specification of the present invention. The lightweight rigid core of honeycomb

cellular material disclosed in the paragraph 3 of the specification is directed to a conventional paper honeycomb, not a honeycomb material of the present invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 16-18, 20-23 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite for claiming the invention in terms of physical properties rather than the chemical or structural features that produce said properties. *Ex parte Slob*, 1 57 USPQ 172, states, claims merely setting forth physical characteristics desired in an article, and not setting forth specific composition which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in the future and which would impart said desired characteristics." As previously discussed above, the honeycomb of the Landi references is made from a thermoplastic resin as the honeycomb of the present invention. However, the Landi honeycomb is flexible while the presently claimed honeycomb is rigid. Also, "it is necessary that the product be described with sufficient particularity that it can be identified so that one can determine what will and will not infringe." *Benger Labs, Ltd v. R.K. Laros Co.*, 135 USPQ 11, *In re Bridgeford* 149 USPQ 55, *Locklin et al. v. Switzer Bros., Inc.*, 131 USPQ 294. Furthermore, "reciting the physical and chemical characteristics of the claimed product will not suffice where it is not certain

Art Unit: 1771

that a sufficient number of characteristics have been recited that the claim reads only on the particular compound which applicant has invented." *Ex parte Siddiqui*, 156 USPQ 426, *Ex parte Davission et al.*, 133 USPQ 400, *Ex parte Fox*, 128 USPQ 157.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 16-18, 20-23, and 26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kaufmann et al (US 5,484,500) as evidenced by Turner et al (US 5,106,668), RD 405061, and the article "Thermoplastic Polymer Products", 2 pages, 2005. Kaufmann teaches a structural panel comprising a honeycomb core interposed between two skins as shown in figure 5. The honeycomb core is made from aramid fibers which are thermoplastic material as evidenced by Turner et al (US 5,106,668). The composite laminate

further comprises a thermoplastic adhesive film disposed between the foam core and the skin (column 4, lines 40-42). RD 405061 evidences that the Kapton adhesive is a thermoplastic polyimide adhesive (page 2). The skins and the core are bonded via fusion bonding (column 4, lines 10-20). The heat from the belt press melts the surface of the honeycomb cellular material (column 3, lines 60-67, figures 3 and 5). Likewise, the first side and second side of the honeycomb cellular material are distorted upon uniform compression of the composite sheet material. Further, the honeycomb core has a fusion temperature lower than the fusion temperature of the skins. Kaufmann discloses the skin made from thermoplastic PEKK (example 1). The article "Thermoplastic Polymer Products" evidences that PEKK has a fusing temperature from 585 °F to 680°F. Kaufmann discloses the belt press was set to a temperature of 680°F (example 6). Likewise, the fusion temperature of the honeycomb would be less than 680°F so as to effectively cause the cell walls are folded into hook-like configurations, thereby increasing the surface area of the honeycomb structure contacting the skins. Accordingly, the fusion of the honeycomb and the skins would be inherently the same so as to increase the surface area for contact between the honeycomb and the skins. Kaufmann does not specifically the adhesive having a fusion temperature lower than the fusion temperature of the honeycomb and the skins. However, such a property would be substantially inherently present so as to promote the adhesion between the honeycomb and the skins. Accordingly, Kaufmann anticipates or strongly suggests the claimed subject matter.

10. The rejections over Kaufmann made in the 06/06/2005 Office Action should not be withdrawn for the reasons set forth in the paragraph above. Kaufmann teaches a honeycomb core made from aramid fibers which are thermoplastic fibers as evidenced by Turner et al. Kaufmann teaches the honeycomb and the skins being simultaneously uniformly compressed to a thickness less than a sum of an initial thicknesses of the honeycomb, the skins while at the temperature higher than the softening temperature of the honeycomb and the first side and the second side of the honeycomb being distorted upon uniform compression of the composite sheet material as shown in figures 3 and 5.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hai Vo

**HAIVO
PRIMARY EXAMINER**

HV